Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently amended): A method for treating an ischemic tissue in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a first enriched population of cells comprising at least 75% human CD133+/CD34+ endothelial progenitor cells and a second enriched population of cells consisting essentially of human mesenchymal stem cells, wherein the first enriched population of CD133+/CD34+ endothelial progenitor cells are enriched from umbilical cord blood mononuclear cells and the second population of mesenchymal stem cells are isolated and purified from bone marrow mononuclear cells.

Claim 2 (Previously Presented): The method of claim 1, wherein the human CD133+/CD34+ endothelial progenitor cells are human hemangioblast cells.

Claim 3 (Cancelled)

Claim 4 (Original): The method of claim 1, wherein treatment of the ischemic tissue induces

(a) formation of blood vessels supplying blood to the ischemic tissue;

(b) blood flow to the ischemic tissue;

(c) oxygen supply to the ischemic tissue; or

(d) a combination thereof.

Claim 5 (Withdrawn): A method for treating an ischemic tissue in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of enriched human CD133+/CD34+ endothelial progenitor cells and enriched human mesenchymal stem cells, wherein the CD133+/CD34+ endothelial progenitor cells and mesenchymal stem cells are enriched from umbilical cord blood or from peripheral blood and once isolated, enriched at least two-fold prior to administration to the subject without leucopheresis or culturing the cells.

Claims 6-8 (Cancelled)

Claim 9 (Withdrawn): The method of claim 1, wherein the CD133+/CD34+ endothelial progenitor cells are autologous to the subject.

Claim 10 (Previously Presented): The method of claim 1, wherein the CD133+/CD34+ endothelial progenitor cells are allogeneic to the subject.

Claim 11 (Previously Presented): The method of claim 1, wherein the CD133+/CD34+ endothelial progenitor cells are HLA compatible with the subject.

Claim 12 (Previously Presented): The method of claim 1, wherein the CD133+/CD34+ endothelial progenitor cells are $CD31^+$, $CD146^+$, VE-$cadherin^+$ or a combination thereof.

Claims 13-20 (Cancelled)

Claim 21 (Previously Presented): The method of claim 1, wherein the human mesenchymal stem cells are autologous to the subject.

Claim 22 (Withdrawn): The method of claim 1, wherein the mesenchymal stem cells are allogeneic to the subject.

Claim 23 (Original): The method of claim 1, wherein the human mesenchymal stem cells are HLA compatible with the subject.

Claim 24 (Previously Presented): The method of claim 1, wherein the therapeutically effective amount of the first enriched population of cells comprising at least 75% human CD133+/CD34+ endothelial progenitor cells and the second enriched population of cells consisting essentially of human mesenchymal stem cells is a safe amount.

Claim 25 (Previously Presented): The method of claim 1, wherein the therapeutically effective amount of the first enriched population of cells comprising at

least 75% human CD133+/CD34+ endothelial progenitor cells comprises at least 1 x 10^4 human CD133+/CD34+ endothelial progenitor cells.

Claim 26 (Previously Presented): The method of claim 1, wherein the therapeutically effective amount of the first enriched population of cells comprising at least 75% human CD133+/CD34+ endothelial progenitor cells comprises between 1 x 10^4 to 5 x 10^8 human CD133+/CD34+ endothelial progenitor cells.

Claim 27 (Previously Presented): The method of claim 2, wherein the therapeutically effective amount of the hemangioblast cells and the human mesenchymal stem cells is a minimum number of cells necessary for increased blood flow induction to the ischemic tissue.

Claim 28 (Previously Presented): The method of claim 1, wherein the human CD133+/CD34+ endothelial progenitor cells and the human mesenchymal stem cells are administered in a ratio of about 5:1 to about 1:5.

Claim 29 (Previously Presented): The method of claim 1, comprising administering to the subject a systemic infusion of the first enriched population of cells comprising at least 75% human CD133+/CD34+ endothelial progenitor cells.

Claim 30 (Previously Presented): The method of claim 29, wherein the infusion is into bone marrow.

Claim 31 (Previously Presented): The method of claim 1, wherein administering to the subject comprises an intra-arterial infusion of the first enriched population of cells comprising at least 75% human CD133+/CD34+ endothelial progenitor cells.

Claim 32 (Previously Presented): The method of claim 1, wherein administering to the subject comprises an intracardiac infusion of the first enriched population of cells comprising at least 75%human CD133+/CD34+ endothelial progenitor cells.

Claim 33 (Previously Presented): The method of claim 1, administering to the subject comprises an intracoronary infusion of the first enriched population of cells comprising at least 75% human CD133+/CD34+ endothelial progenitor cells.

Claim 34 (Original): The method of claim 33, wherein said subject is in need of treatment for chronic myocardial ischemia.

Claim 35 (Original): The method of claim 1, wherein administering to the subject comprises using an intra-arterial catheter or stent.

Claim 36 (Previously Presented): The method of claim 1, wherein said subject is in need of treatment for ischemia selected from limb ischemia, ischemic

cardiomyopathy, myocardial ischemia, cerebrovascular ischemia, renal ischemia, pulmonary ischemia and intestinal ischemia.

Claim 37 (Withdrawn): The method of claim 1, wherein the human CD133+/CD34+ endothelial progenitor cells are genetically modified.

Claim 38 (Withdrawn): The method of claim 37, wherein the human CD133+/CD34+ endothelial progenitor cells are genetically modified to express a recombinant polypeptide.

Claim 39 (Withdrawn): The method of claim 38, wherein the recombinant polypeptide is VEGF, BFGF, SDF, CXCR-4 or CXCR-5.

Claim 40 (Original): The method of claim 1, further comprising administering to the subject at least one recombinant polypeptide.

Claim 41 (Original): The method of claim 40, wherein the recombinant polypeptide is VEGF, BFGF, SDF, CXCR-4 or CXCR-5.

Claim 42 (Original): The method of claim 38, wherein the recombinant polypeptide promotes angiogenesis, vasculogenesis, or both.

Claim 43 (Previously Presented): The method of claim 38, wherein the recombinant polypeptide is selected from among a growth factor, a cytokine, a chemokine or a receptor thereof.

Claims 44-47 (Cancelled)

Claim 48 (Withdrawn): A method for increasing blood flow to an ischemic myocardium in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of enriched human CD133+/CD34+ endothelial progenitor cells and enriched human mesenchymal stem cells, wherein the CD133+/CD34+ endothelial progenitor cells and mesenchymal stem cells are enriched from umbilical cord blood or from peripheral blood at least two-fold prior to administration to the subject without leucopheresis or culturing the cells.

Claim 49 (Cancelled)

Claim 50 (Withdrawn): The method of claim 48, wherein the human endothelial precursor cells and the human mesenchymal stem cells are administered to the subject by infusion into at least one coronary artery.

Claim 51 (Withdrawn): The method of claim 48, wherein said ischemic myocardium comprises an area of viable myocardium.

Claim 52 (Withdrawn): The method of claim 50, wherein the coronary artery is an epicardial vessel that provides collateral blood flow to said ischemic myocardium in the distribution of a chronic totally occluded vessel.

Claim 53 (Withdrawn): The method of claim 48, wherein the endothelial precursor cells and the mesenchymal stem cells are administered in a ratio from about 5:1 to about 1:5.

Claim 54 (Currently amended): A method for improving blood flow to an ischemic myocardium having an area of viable myocardium in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a first enriched population of cells comprising at least 75% $CD133^+/CD34^+$ cells and a second enriched population of cells consisting essentially of human mesenchymal stem cells, wherein the first enriched population of cells comprising at least 75% $CD133^+/CD34^+$ cells are administered by infusion into a coronary artery that is an epicardial vessel that provides collateral flow to said ischemic but viable myocardium in the distribution of a chronic totally occluded vessel, and wherein administering of the first enriched population of cells comprising at least 75% $CD133^+/CD34^+$ cells and the second population of cells consisting essentially of human mesenchymal stem cells results in improved blood flow to said ischemic myocardium, wherein the first enriched population of cells comprising at least 75% $CD133^+/CD34^+$ cells and are isolated and purified from umbilical cord blood mononuclear cells and the second enriched population of cells consisting essentially

of human mesenchymal stem cells are isolated and purified from bone marrow mononuclear cells.

Claim 55 (Cancelled)

Claim 56 (Original): The method of claim 54, wherein the human mesenchymal stem cells are isolated from said subject.

Claim 57 (Currently amended): A method for inducing the formation of blood vessels in an ischemic tissue in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a first enriched population of cell comprising at least 75% human $CD133^+/CD34^+$ hemangioblast cells and a second enriched population of cells consisting essentially of human mesenchymal stem cells, wherein the human $CD133^+/CD34^+$ hemangioblast cells are enriched from umbilical cord blood mononuclear cells and the mesenchymal stem cells are isolated and purified from bone marrow mononuclear cells.

Claims 58-61 (Cancelled)

Claim 62 (Withdrawn): The method of claim 5, wherein the enriched CD133+/CD34+ endothelial progenitor cells (i) are enriched CD133+ hemangioblasts purified from umbilical cord blood; and (ii) are allogeneic to the subject.

Claim 63 (Withdrawn): The method of claim 62, wherein the enriched CD133+ hemangioblasts and the enriched human mesenchymal stem cells are administered to a subject via intracoronary infusion, and wherein the subject is afflicted with myocardial ischemia.

Claims 64-66 (Cancelled):

Claim 67 (Previously Presented): The method of claim 28, wherein the human CD133+/CD34+ endothelial progenitor cells and the human mesenchymal stem cells are administered in a ratio of from about 2:1 to about 1:2.

Claim 68 (Previously Presented): The method of claim 67, wherein the human CD133+/CD34+ endothelial progenitor cells and the human mesenchymal stem cells are administered in a ratio of about 1:1.

Claim 69 (Previously Presented): The method of claim 10, wherein the human mesenchymal stem cells are autologous to the subject.